

Questions and Answers: Potato Cyst Nematode and the National Survey Plan

Q. What is potato cyst nematode or PCN?

A. The potato cyst nematode (PCN), *Globodera pallida*, is a major pest of potato crops in cool-temperate areas. It affects plants within the potato family, including tomatoes, eggplants, and some weeds.

If left uncontrolled, PCN can cause up to 80 percent yield loss in potato fields. PCN infestations may be associated with patches of poor growth in potato fields. With high nematode populations, affected potato plants may exhibit yellowing, wilting, or death of foliage.

Q. How does PCN spread?

A. PCN is spread primarily by the transport of cysts in soil. The spread may occur through movement of soil adhering to farming equipment, seed potatoes, nursery stock, flower bulbs, and potatoes.

Q. Has PCN been detected in the United States?

A. In April 2006, PCN was detected for the first time in the United States. The nematode cysts were found during a routine survey of tare soil at an Idaho State Department of Agriculture grader facility in eastern Idaho. Prior to its discovery in Idaho, the detection of PCN in North America had been limited to the island of Newfoundland, Canada. PCN is widely distributed in many potato-growing regions throughout the world.

Q. What is the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) doing to stop the spread of PCN?

A. In August 2006, APHIS issued a Federal Order to restrict the interstate movement of certain products from Idaho to prevent the potential spread of PCN. The Federal Order specifically restricted the movement of the following regulated articles: potatoes; nursery stock; soil, compost, humus, muck, peat, and decomposed manure; grass sod; small grains and

soybeans; hay, straw, fodder, and plant litter; ear corn, except shucked; used farm equipment; and any other articles deemed to present a hazard for spreading PCN. These articles can only be moved interstate when accompanied by a certificate or limited permit signed by an authorized inspector.

Q. What is the National Survey Plan for PCN?

A. APHIS has developed a science-based National Survey Plan for the detection of PCN in all potato-producing States. The intent of the survey is to detect any potential problems early and to gather information to demonstrate to trading partners that U.S. potatoes are PCN-free.

Q. Do you think more PCN will be discovered in the United States?

A. Based on our past survey efforts, we believe that there is a very low probability that PCN is present elsewhere in the United States. If isolated detections are discovered, the National Survey Plan provides an opportunity for early detection.

Q. What will happen if more PCN is discovered in the United States?

A. If a new detection occurs, regulatory actions will be taken to protect other potato fields and lessen the effects on the potato industry as a whole. In such an event, APHIS is committed to working with potato growers and State counterparts to develop reasonable and appropriate regulatory actions.

Q. Why is early detection so important?

A. Early pest detection is critical to minimizing agricultural production costs and enhancing product quality and marketability. If PCN is detected in a field early and it is determined to occur at a low level, it is possible to make the land viable more quickly with careful planning and pest management.

Q. What kind of trade benefits might result from the National Survey Plan?

A. The data gathered through the National Survey Plan is an essential tool to help the United States restore markets that were lost after the PCN find in Idaho and to perhaps provide the opportunity for opening new markets. APHIS successfully used a similar aggressive strategy for bovine spongiform encephalopathy (BSE) surveillance to demonstrate that the occurrence of BSE in the United States is extremely low and declining each year.

Q. What does the PCN National Survey entail?

A. The survey in each State will target all seed fields and approximately 10 percent of production fields. While the selection of production fields is designed to be random, special attention may be paid to fields with a higher likelihood of infestation and detection. The timeframe for conducting the proposed survey plan is 2 years.

The rationale for surveying all seed potato fields is that seed potatoes pose the greatest risk (pathway) for PCN introduction and contamination from one field to another. Early detection may help prevent the spread of PCN to other areas. Surveying 10 percent of the 2006 commercial potato fields over the span of the next 2 years would provide the necessary data to demonstrate area freedom of PCN to trading partners.

Q. Is the survey mandatory?

A. Participation in the survey is voluntary. However, the benefits of the survey to the entire potato industry are likely to be directly related to the level of participation. In other words, more participation in the survey will generate more information to demonstrate that, other than the isolated detection in Idaho, there is no PCN in the United States. This information will help to improve the domestic and international marketability of the U.S. potato crop. Even if additional isolated cases of PCN are detected through the survey, APHIS and its State partners are prepared to localize and contain any potential problems and minimize the negative effects that may result. In this way, survey and early detection will better protect the U.S. potato industry from the serious consequences of allowing PCN to spread unchallenged or become established in the United States.

Q. Who will bear the cost of the National Survey Plan?

A. The National Survey Plan will be fully funded by USDA-APHIS.

Q. How can commercial or seed potato producers get involved in the program?

A. The National Survey Plan is a cooperative effort between APHIS and the 36 potato-producing States.

Q. Where can I get more detailed information?

A. Background on PCN, APHIS' Federal Order, the National Survey Plan, and other materials, are available online at <http://www.aphis.usda.gov/ppq/ispm/potato/pcn.html>.

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